



THE INTERNATIONAL FLOOD MITIGATION INITIATIVE FOR THE RED RIVER: A MODEL FOR A PRACTICAL, TRANSBOUNDARY, CITIZEN-PARTICIPATORY PROCESS FOR WATERSHED FLOOD DAMAGE REDUCTION AND COMMUNITY RESILIENCY

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Thank you for this opportunity to describe the work of the International Flood Mitigation Initiative (IFMI) as a model for a practical flood damage reduction implementation process for an international watershed. My name is Louis Elisa. I serve as the Civil Emergency Planning Advisor to the United States Ambassador to NATO from the U.S. Federal Emergency Management Agency (FEMA). I represent the U.S. Federal Emergency Management Agency (FEMA) of the government of the United States. FEMA is the agency in the United States federal government with responsibility to help communities recover from major natural disasters as determined by the Governor of each state and the President of the United States. The agency's Director is a Cabinet-level appointment by the President of the United States. James Lee Witt, the agency Director, has made a commitment to shift research, resources, and programs from natural disaster recovery to natural disaster damage mitigation. The International Flood Mitigation Initiative for the Red River (IFMI) process in the states of North Dakota, Minnesota, and South Dakota and the province of Manitoba (Canada) is an example of pilot efforts to strengthen natural disaster damage mitigation. In this historic transition toward disaster damage mitigation, FEMA has created Project Impact in which designated disaster-prone cities have received funding to develop community plans to promote disaster resiliency and reduce anticipatable damages. These cities have all experienced serious floods, hurricanes and earthquakes.*

IFMI

The International Flood Mitigation Initiative for the Red River (IFMI) is also a FEMA initiative within Project Impact. IFMI is the first example of a Project Impact program for an entire watershed. For this first regional and international pilot of its kind, FEMA Director James Lee Witt asked the Consensus Council in Bismarck, North Dakota to assemble Canadian and U.S. participants in a consensus process, with bi-national staffing.

The Consensus Council has wide experience to facilitate stakeholder participants from Manitoba, Minnesota and North Dakota, and the Canadian and U.S. federal governments, the nonprofit sector and the private sector. IFMI sought to build consensus on a comprehensive set of practical initiatives to reduce future flood damages in the Red River basin and to strengthen basin community resources to accomplish this goal.

* This regional pilot complements Project Impact, the Agency's priority national program to help individual communities become disaster resistant. Fargo, Jamestown and Valley City, North Dakota are Project Impact communities in the Red River Basin.

For our purposes here of thinking about and showcasing attractive, practical models for watershed disaster damage mitigation, IFMI is notable. I will explain some of those notable elements. These may be of interest and assistance to you in your planning of comparable projects.

We believe that IFMI is notable in the following ways:

1. For its international impact,
2. Its participatory process,
3. Neutral facilitation of meetings and community meetings;
4. Local consultation with citizens in community meetings;
5. Recognition of regional community building; and
6. Integration of implementation of initiatives in the planning process.

BACKGROUND

The Red River Basin

The Red River flows for 400 miles from south to north across the Canada-United States border at the 49th parallel. The Red River basin includes the States of South Dakota, North Dakota, Minnesota and the Canadian province of Manitoba. The major urban areas of Winnipeg (MB), Grand Forks/East Grand Forks (US), Fargo/Moorhead (US), and Wahpeton/Breckenridge (US) are located in this Red River flood plain. The Red River is the major source of drinking water and water for agriculture and industry.

A former glacial lake, the Red River basin is a nearly flat watershed covering an extensive area on both sides of the river. Small increases in flood waters spread overland affecting a wide area.

The Red River and its tributaries flood in significant local areas each year. Notable wider floods occurred in 1826, 1852, 1953, 1979, and 1997. The major floods on the Red River result from a combination of spring runoff, river ice, and rains. These floods are made more severe in their effects by extensive projects to drain water quickly from agricultural lands.

In 1997, the Red River flooded. Sister cities Grand Forks/East Grand Forks suffered extensive damage. Manitoba, Canada, a city of 650,000 people, was narrowly saved in 1997 by a change in wind direction at time of the peak flood level. The damage from this 1997 flood US \$500,000,000. The whole of the basin was disrupted for months.

The infrastructure of the Red River basin includes several institutions with interests relating to flood mitigation.* These agencies and organizations have partial responsibilities, but none have overall responsibility for flood mitigation.

The Consensus Council

The Consensus Council is a nonprofit organization, founded in 1990, in the state of North Dakota. The Council provides convening, facilitation, documentation and implementation assistance to citizens and leaders in building and implementing agreements on difficult public policy problems.

In addition to the IFMI consensus process, the Council has helped leaders and citizens to develop a judicial branch restructuring process, legislation that enables local governments to develop to provide more efficient and effective services to the public, procedures for life-sustaining medical treatment decision making. Currently, the Council is assisting a consensus process to address issues in the national grasslands in North Dakota.**

* The International Joint Commission (IJC) is a treaty-based agency established to cooperatively address all shared watersheds on the border between Canada and the United States. Citation. Other institutions include the provincial and state governments, local governments, university-based institutions and nonprofit organizations. Other federal agencies of both governments have responsibilities including Emergency Preparedness Canada, Environment Canada, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency and...

** For additional information regarding The Consensus Council, see www.agree.org.

Funding

Financial support for this regional and international initiative is from FEMA (US) and Province of Manitoba (Canada).^{*} The participants and their agencies contributed their time and expenses for the IFMI meetings.^{**}

THE CONSENSUS PROCESS

The IFMI consensus process itself consisted of several significant parts:

- A shared travel experience by a representative group of leaders;
- The convening of the IFMI leaders;
- Organization of community meetings to identify citizen ideas and priorities;
- Technical study of flood mitigation issues;
- Identification of flood damage mitigating initiatives;
- Organization of community meetings to review and assess the IFMI initiatives; and
- Implementation of IFMI initiatives.

The Netherlands Delegation

Shared travel and study experience unites people across geographic, constituency and ideological barriers. These bonds create the trust and mutual understanding needed for a consensus process. The shared travel provides the informal context for clarifying different viewpoints and identifying shared interests. Working together, shared interests can be translated into practical projects to meet mutual goals.

In March of 1998, staff of the Consensus Council led a delegation of top level water policy people from the Red River Basin—Canada and the US—to the Netherlands to learn how the Dutch have developed their water and flood mitigation policy over 700 years.^{***} The delegates learned about flood mitigation policies in the Netherlands and Western Europe, developed personal relationships, and recognized the international dimensions of water policies.

They learned from the Dutch that ending the costly and destructive pattern of repetitive disasters ultimately requires linking the interests of many conflicting constituencies. The Dutch have demonstrated that an integrated, multi-objective approach is necessary on its own merits and helps broaden public support for proactive disaster damage mitigation. Otherwise, political and legal battles, especially those between economic and environmental interests, will continue to impede progress.

Following the trip to the Netherlands, in April 1998, Consensus Council staff facilitated a meeting at which members of the delegation to the Netherlands shared what they learned with other leaders interested in the Red River basin. This exchange led to discussions of how to accomplish what the Dutch have achieved in basin-wide flood mitigation and water management with their European neighbors.

At that meeting, significant progress was made toward defining a credible and acceptable mechanism for international basin-wide planning and consensus building—a fundamental issue that has bedeviled past and present watershed initiatives across political boundaries. Participants expressed interest in meeting together again to further that effort.

^{*} In 1998, the Consensus Council received a grant of US \$195,000 from FEMA to organize the IFMI process. The Province of Manitoba provided funding of approximately US \$100,000 for Canadian staff services to IFMI and for the IFMI meetings held in Manitoba.

^{**} Participants have made significant contributions to the IFMI process. Each participant has at least a full working month of their time to the IFMI process in the last two years. Many IFMI participants have contributed far more in pre-meeting conferences, in providing technical assistance, in subgroup meetings between IFMI meetings, in conference calls on specific topics and in attending the community meetings.

^{***} FEMA staff participated in the delegation to the Netherlands. Based on the visit and these follow-up discussions, FEMA chose the Red River Basin for its first regional mitigation pilot in the U.S. and encouraged Canadian participation to address the entire watershed.

IFMI Meetings

Participants in IFMI included representatives of the states of Minnesota and North Dakota, the province of Manitoba, the two federal governments, the nonprofit sector, tribal communities, and the private sector.*

Ground rules for discussion are valuable to create conditions for candor, clarity and effective use of time.**

The participants developed basic agreements. IFMI participants drew general conclusions that provided a foundation for their initiatives. These conclusions included the following:

- The Red River is a resource as well as a challenge.
- The Red River knows no jurisdictional borders.
- The risks and benefits of the Red River are shared by Manitoba, North Dakota, Minnesota and South Dakota.
- Red River floods will occur again.
- Flood damage mitigation efforts must be cooperative among all constituencies.
- Flood damage mitigation and environmental enhancement are linked with economic development and community well being.
- Concerned people from all constituencies can develop cooperative efforts and solutions to Red River flood damage.

Facilitation Services

The benefits of third-party facilitation by the Consensus Council were widely recognized. The Council's neutrality and the fairness of the process permitted participants to represent their initial contrasting viewpoints and find their common ground. Facilitators took responsibility for the process so the participants could focus their efforts on the substantive issues. Neutral facilitation also provides credible written documentation of the emerging agreements throughout the process.

The IFMI participants began by developing a vision, mission and goals. They had the benefit of suggestions from hundreds of citizens throughout the Red River basin.

IFMI Vision for the Basin The participants agreed on an IFMI vision for the Red River basin:

By the Year 2010, the community of the Red River Basin has addressed flooding through mitigation that achieves significant flood damage reduction goals while enhancing economic, social and ecological opportunities.

IFMI Mission They identified an IFMI Mission:

To promote and develop achievable and action-oriented flood mitigation goals and implementation strategies by engaging citizens, their communities and governments.***

* IFMI participants included legislators, provincial and state executive branch officials with responsibilities for public health, the environment, water, and natural resources, representatives of federal emergency management, environment and water agencies, political leaders, local government officials, disaster relief agencies, environmental organizations, business and banking groups, university leaders, charitable foundation representatives, international agencies, and water management agencies.

** IFMI ground rules included:

- It's your show.
- Everyone is equal.
- No relevant topic is sacred.
- No discussion is concluded until the end.
- Merit of and respect for each other's opinions and the time.
- Make certain the facilitator writes what you meant.
- Have fun.

IFMI Goals for the Basin The goals of the IFMI process were identified:

Goal No. 1: Developing Basin Wide Cooperation, Coordination and Citizen Participation

To develop and support implementation of a basin-wide approach for forecasting, cooperation and communication for flood mitigation in ways that assure accountability, citizen assistance, responsiveness to local concerns, and public awareness and participation.

Goal No. 2: Forging Public-Private and Community Partnerships

To forge lasting partnerships among government, private and non-profit organizations and communities to ensure best practices in flood mitigation.

Goal No. 3: Protecting People and Property

To recommend and support flood mitigation strategies that protect human life, property and well being.

Goal No. 4: Enhancing Environment, Economy and Community

To recommend and support flood mitigation practices which enhance ecological benefits, economic development, heritage preservation, and social, cultural and recreational opportunities.

Goal No. 5: Coordinated Oversight and Funding

To recommend a method for establishing basin wide coordinated oversight and for securing funding and other resources needed to achieve these flood mitigation goals.

Within this framework set by the participants, IFMI developed significant initiatives and the participants have taken practical steps and developed resources and partnerships to help build a coordinated and cooperative basin region of flood resistant and resilient farms and communities.

Community Meetings

Community meetings are essential to the consensus process on issues of important public policy. Community meetings guided the direction of the assembled leaders, provide new ideas and helped establish the IFMI priorities. Community meetings within the basin were held early in the process to identify citizen values and priorities and near the end of the process to assess and improve the IFMI proposals and initiatives.

Following the early identification of a proposed vision, mission and goals, IFMI held six community meetings in all areas of the Red River Basin to ask for citizen discussion.* The comments received at those initial community meetings, confirmed the tentative vision, mission and goals that IFMI participants had developed.** Citizens expressed strong support for the goals and some skepticism that these goals could be implemented in significant ways.

There was strong support for particular values and priorities. The themes of citizen comments emphasized:

- Determination of the need for a basin-wide governance process with strong bottom-up participation;
- Development of coordinated and cooperative mechanisms to share flood forecast information;
- Emphasis on public information through media and schools;
- Turning the Red River from a threat into an economic, social and environmental asset and resource;

*** "Flood mitigation" means systemic and sustained actions that substantially reduce risk of harm to human life, property and the environment.

* These initial meetings were held in June-July, 1999 in Fargo, ND --Moorhead, MN, Wahpeton, ND -- Breckenridge, MN, Valley City, ND, Thief River Falls, MN, Emerson, MB -- Pembina, ND, and Morris, MB.

** Approximately 350 citizens on both sides of the border between Canada and the United States, in the states of Minnesota and North Dakota and the province of Manitoba participated in the community meetings.

- Upstream water storage and retention structures;
- Linked to local flood mitigation planning; and
- The need to compensate farmers for flood damage mitigation practices on agricultural lands.

These community meetings contributed new ideas to the IFMI consensus process. Two themes were new to the IFMI discussion: a multi-use greenway from Lake Traverse to Lake Winnipeg and the need for a single governance mechanism in the basin to develop and implement flood damage mitigation programs and activities across political boundaries.

IFMI participants participated in the community meetings. They reviewed all the public comments and themes, which became the guiding framework for developing the IFMI initiatives.

These community meetings were significant in format and stand as a clear alternative to public hearings, which polarize the relationship of leaders and citizens. The community meetings are structured to be “neighbors talking with neighbors in the presence of leaders” in small groups. The small groups report to the larger group.

The community meeting discussion is preceded by a shared meal, which affirms community spirit and sets the context for civil conversation.

All comments are documented and reported to IFMI. The IFMI participants can also bring their unique assessments of the citizen values and priorities to the IFMI discussion.

IFMI organized a second round of community meetings near the end of the IFMI process in 2000 to give citizens the opportunity to review IFMI initiatives and suggest modifications.*

IFMI MEETINGS

IFMI participants have met 14 times since December of 1998 in cities throughout the Red River Basin.

IFMI stakeholders shared leadership. Each meeting was chaired by rotating co-chair participants. In that way, all state and provincial participants had an opportunity to co-chair a meeting at some time during the process. Between meetings, decisions regarding agendas and process were taken by a rotating Interim Committee, in which all participated by turns.

Flexibility was important. Initially, meetings took place in one full day. After the fifth meeting, participants agreed that, in order to be able to make more progress, they would begin their meetings the evening before and continue them through the next day.

The agenda format proposed by the Interim Committees was stable during the meetings. Although the pattern varied, meetings generally began on Tuesday evening with a review of progress and general discussions preparing participants for the second day. Education sessions on specific topics began on Wednesday morning and were followed by discussions and often by breakout groups that each considered aspects of the education sessions and developed recommendations while ideas were still fresh. Each meeting concluded with comments from Co-Commentators, who were designated to monitor the quality of the discussion process and report their observations to the group to assist future meeting planning.

IFMI AGREEMENTS

As reflected in the vision, mission and goals developed by IFMI, the following summarizes areas of agreement:

- **Basin Community:** We recognize that the Red River Basin is a community across state, provincial and international borders.

* These meetings were held in Drayton and Grand Forks, ND, Warren and Breckenridge, MN, and Latellier, MB.

- **Flood Resistant and Resilient Communities:** We have learned that mitigation requires changing structures, landscape and uses in the flood plain and watershed to prevent and minimize damages from floods to people and property.
- **Standards:** We need high goals and standards to assure resilient communities.
- **Cooperative and Coordinated Oversight:** We agree on the need for a cooperative mechanism to ensure that mitigation activities are coordinated across local, state, provincial and international boundaries.
- **Partnerships:** We must develop new partnerships between public, private and non-profit sectors.
- **Practical Steps:** We are taking significant, practical steps and creating initiatives.
- **Public Education:** Public information and understanding of flood mitigation can be improved through media and schools.
- **New Knowledge:** We need research, innovation, and technical advice to support our initiatives for flood damage mitigation.
- **Good Model:** We regard IFMI as an excellent model for developing a Basin community of flood resistant and resilient farms and communities.
- **Talking with Citizens:** Citizens talking with citizens about what we can do for flood mitigation creates the atmosphere for constructive steps by public leaders.
- **Funding, Resources, Frameworks:** We are developing funding, resources and institutional frameworks to ensure implementation of IFMI recommendations.

IFMI INITIATIVES

IFMI initiatives are grouped into three categories:

- Basin-wide Flood Mitigation Governance;
- Public Education and Research on Flood Damage Mitigation; and
- Basin-wide Flood Resilience.

1. Basin-wide Flood Mitigation Governance

Basinwide Coordination and Cooperation IFMI proposes a Memorandum of Understanding (MOU) that would establish an organizational mechanism for Manitoba, Minnesota, North Dakota, South Dakota, and the US and Canadian federal governments for consultation and joint decision-making on flood mitigation in the Red River Basin. The MOU provides for:

- **A Red River Basin Commission** representing the three States, the Province and the Canadian and U.S. federal governments to review and approve Steering Committee recommendations for joint action by the respective governments.
- **A broad-based Steering Committee** to develop recommendations to governments regarding basinwide flood mitigation planning and implementation* and
- **Sustained public participation** in identifying and implementing flood mitigation priorities for the Basin.

Basinwide Legislator Dialogue IFMI organized a forum of Manitoba, Minnesota, and North Dakota legislators from the Red River Basin that participants intend will become an annual event. The forum will increase mutual understanding of flood mitigation issues faced by each jurisdiction; and help lay a foundation for building cooperative agreements among the jurisdictions on flooding and other important issues.

Flood Insurance Compliance (U.S.) An IFMI initiative with financial lenders will achieve better compliance with current U.S. laws and regulations that require the purchase of flood insurance in at-risk areas. This cooperative effort will:

* The Committee would include representatives of federal, provincial, state and local governments, basin-wide institutions such as the International Joint Commission and Red River Basin Board, private sector organizations in business and agriculture, environmental and other nonprofit organizations, and charitable foundations.

- Convene representatives of U.S. community, regional and national banks with operations in the Red River basin to discuss high rates of noncompliance with flood insurance requirements for home mortgages and other loans; and
- Assist banks in developing voluntary principles and guidelines to improve flood insurance compliance and expand flood insurance coverage in at-risk areas; and
- Identify other ways to increase flood insurance compliance and coverage in U.S. Red River Basin communities.

2. Public Education and Research on Flood Mitigation

Broadcast Media Partnership Prairie Public Broadcasting is the one media organization with coverage of the whole Red River Basin. With IFMI assistance, Prairie Public Broadcasting received a three-year, US \$ 775,000 grant from the Bremer Foundation and Bremer Banks to partner with public and private American and Canadian television and radio stations throughout the Basin. This initiative will provide comprehensive, basin-wide programming, including daily information and updates about flood conditions and forecasts, in-depth features about the geography, geology, hydrology and history of flooding, as well as steps that the public and private sector can take to reduce flood damages, and a comprehensive web site service for use by the public and institutions that will support and expand on radio and television programming and link users to other valuable Internet resources on flood mitigation.

Print Journalism Partnership Based at the University of North Dakota School of Communications, in partnership with other Canadian and U.S. academic institutions in the region, this project will work with Red River Basin newspapers and other print media outlets. The project will encourage sustained coverage of flood mitigation by news organizations, develop arrangements for sharing newspaper stories throughout the basin, offer journalism students opportunities to research and write flood mitigation stories and features; and provide a future generation of journalists with knowledge and experience to cover flood-related issues.

Research and Mapping In addition to supporting watershed education in schools, the newly formed Red River Basin Institute for Flood Mitigation, Natural Resources and Watershed Education at the Tri-College University at Fargo-Moorhead will bring together Canadian and U.S. governments, private sector and nonprofit stakeholders, and academic and research institutions throughout the region. The Institute will provide a collaborative mechanism for diverse interests to conduct research on key scientific issues relating to flood mitigation and natural resource enhancement, assist and monitor implementation of state-of-the-art flood mitigation programs, projects, and practices; and build on data gathering, mapping, and decision support tools.

Watershed Education in Schools The Red River Basin Institute at the Tri-College University, in partnership with other Canadian and U.S. academic institutions, established a Watershed Education Program to work with school districts, public and private schools and teachers throughout the Basin. The program will infuse flood mitigation into the teaching and curricula of schools by developing a watershed-based curriculum, training programs for secondary and post-secondary faculty, and providing technical assistance to schools throughout the basin.

Floodplain Architecture The University of Manitoba, in cooperation with the U.S. universities in the region, will create an Institute for Flood Architecture and Floodplain Planning. Better design of homes, buildings and other structures and more careful planning of communities and land uses can significantly reduce flood damages, while improving community aesthetics and quality of life. This multi-university partnership will develop and promote innovative community design and planning; residential and commercial design and construction, landscape architecture and planning and design and siting of flood control structures.

3. Basin-wide Flood Resilience

The Greenway on the Red IFMI formed the Greenway on the Red Trust, a nonprofit organization, to develop a shared, continuous, multi-use, 400-mile, international greenway corridor along the Red River, and its tributaries. The Greenway will link the people and communities of the Red River Basin from Lake Traverse in South Dakota to

Lake Winnipeg in Manitoba. The Greenway on the Red Trust will contribute to reducing future flood damage and enhance economic development, conservation, recreation, and tourism in the basin by:

- **Developing micro-water storage** and retention projects and land uses;
- **Supporting and linking existing local greenway development efforts** up and down the Red River and its tributaries in a common effort;
- **Coordinating joint activities and projects** needed to develop a shared greenway; and
- **Attracting federal, state, provincial and private sector resources** to the region to support local greenway development and management.

Water Storage and Retention and Floodplain Management IFMI, in partnership with other institutions and stakeholders, formulated a proposed basin-wide reconnaissance study of flood mitigation options in the U.S. that can reduce downstream runoff by absorbing, retaining, and storing water on the land and foster sensible floodplain management practices. The reconnaissance study would explore and recommend options for:

- **Implementation of small and large-scale water storage and retention projects** that integrate natural resource enhancement in project design;
- **Establishment of greenways and restoration of natural floodplains** along streams and rivers to reduce repetitive flood damages; and
- **Implementation of land management practices** that enhance the capacity of the landscape to absorb and retain runoff from snowmelt and rainfall.

Compensation for Flood Mitigation Practices on Private Lands IFMI developed the Farm Stewardship Initiative (FSI) to compensate private landowners for land uses and management practices that help protect farms and downstream communities from flood damages. Conservation tillage, small-scale storage projects, and restoration of grasslands, wetlands, woodlands and riparian areas can also provide water quality, conservation and recreational benefits, in addition to flood mitigation. IFMI developed the Farmland Stewardship Initiative, under consideration in the U.S. Senate, to:

- **Pay farmers for land stewardship services** that foster flood mitigation, water quality, conservation, recreation and other benefits;
- **Provide financial incentives** for retirement of frequently-flooded, marginal land to increase producer income while reducing taxpayer costs from crop losses and other flood damages; and
- **Encourage cooperation among neighboring farmers** to implement flood mitigation and other land management practices on a watershed or sub-watershed scale.

Community Flood Mitigation, Preparedness and Recovery IFMI organized a coordinated technical assistance capacity to Red River basin communities to help them become disaster-resistant to help local communities develop and implement comprehensive local plans for:

- **Reducing flood damages** through improvements to community infrastructure;
- **Increasing flood preparedness** by developing guidelines and actions plans to be followed during times of peak flood conditions; and
- **Improving community capacity** to respond and recover when flooding does occur.*

Each of these initiatives is significant for the Red River basin. Together, these initiatives show the comprehensiveness to address all aspects of basin life related to flood damage mitigation. Several of the initiatives show particular creativity and innovation to meet local needs that can be separately used as models for initiatives in communities in other flood basins.

And, most significantly for our purposes, each of these initiatives is already in some stage of implementation before the IFMI process was complete. This combination of talk and action is a significant part of this representative, collegial, participatory, and balanced process. The funding for these initiatives comes from organizations, governments at different levels and charitable foundations.

* The Red River Basin Board, with its extensive links to local governments throughout the basin, administers this project

I am sure that you have noted how each of these initiatives integrates with the values of environmental conservation and enhancement, community building and economic development in the Red River basin. This is true because the forum is integrated and the discussion is robust and thorough among representatives of many viewpoints on all issues. The results of this consensus dialogue cannot but be integrated.

CONCLUSION

The International Flood Mitigation Initiative for the Red River (IFMI) is a practical, transboundary, citizen-driven consensus process for watershed flood damage reduction, community resiliency, and economic and environmental sustainability. IFMI is a successful model for use by FEMA in addressing disaster mitigation efforts in the United States. IFMI demonstrates how local initiative can address important transboundary watershed issues for disaster damage mitigation. This experience is available and may be of use in other international watersheds.*

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